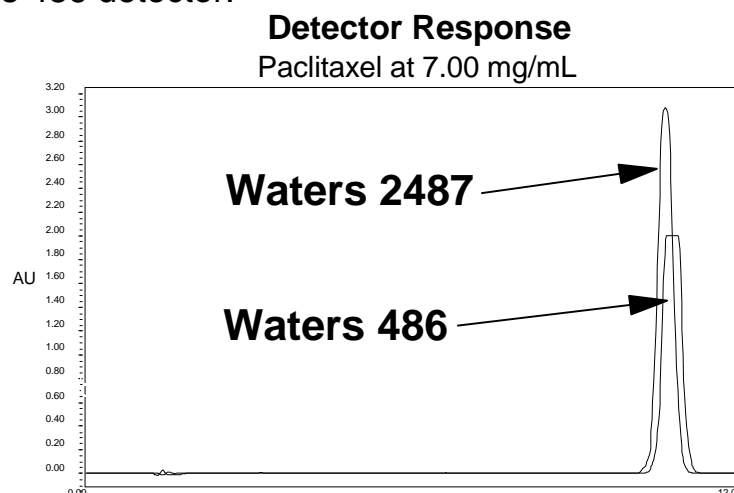


## Waters® 2487 Dual $\lambda$ Absorbance Detector

### Unmatched Dynamic Range and Linearity in UV/VIS Detection

The Waters 2487 detector features advanced programmability, dual wavelength capability, unmatched signal-to-noise performance, reduced optical bandwidth and exceptional linearity to provide the highest performance in UV/Vis detection for your HPLC analyses. The innovative TaperSlit™ flow cell design and Lamp Optimization Software deliver the sensitivity to detect minor impurities coupled with the linear dynamic range to simultaneously quantitate major and minor components.

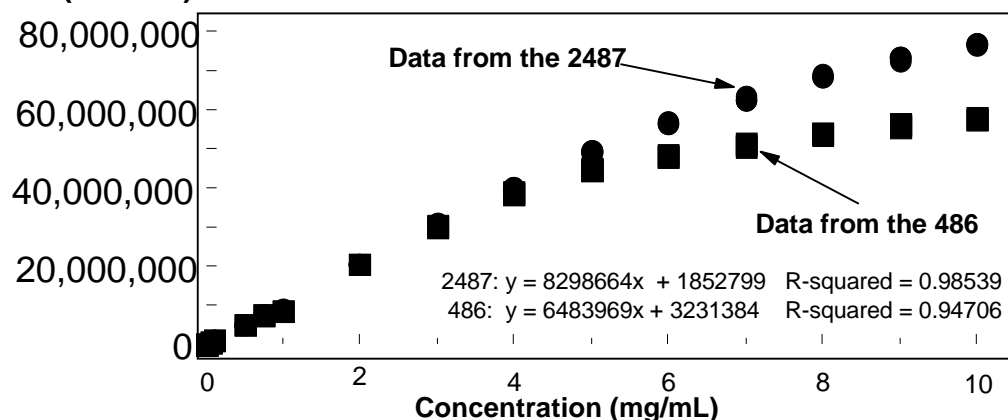
Previous Waters Performance PerSPECTives (WPP29,WPP23) have addressed the impact of the unique TaperSlit™ flow cell design on the improved signal-to-noise characteristics of the Waters 2487 detector over those of other dual wavelength UV/Vis detectors. The innovative TaperSlit™ design also provides a narrow bandwidth (5nm) which increases detector linear range (WPP28). The following chromatogram illustrates the overlay of the response generated for the compound paclitaxel at a concentration of 7 mg/mL on the Waters 2487 dual wavelength detector and the Waters 486 detector. Note the extended dynamic range of the Waters 2487 detector when compared to that of the Waters 486 detector.



**Conditions:** Column: Symmetry® C8 (3.9 x 150 mm)  
Buffer: 20mM NH<sub>4</sub>OAc (pH 5.0) / ACN / MeOH 50:40:10  
Flow Rate: 1 mL/min      Temperature: 30° C.  
Inj. Volume: 5  $\mu$ L      Wavelength: 227 nm

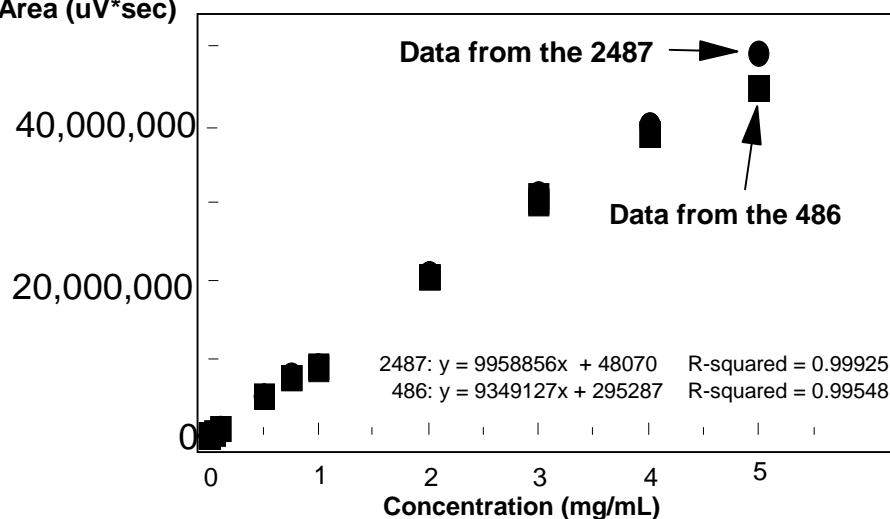
The improved linear range performance of the Waters 2487 detector over that of the Waters 486 detector is graphically illustrated below across four orders of magnitude of Paclitaxel concentrations from 0.0005 mg/mL to 10 mg/mL.

**Area (uV\*sec)**



The following graph illustrates the concentration subset from 0.0005 mg/mL to 5 mg/mL from the previous linearity plot. Note the improved correlation coefficient calculated for the Waters 2487 detector.

**Area (uV\*sec)**



### Summary:

**Use of the Waters 2487 detector with the patented TaperSlit™ flow cell can increase laboratory productivity by allowing scientists to examine, in the same run, complex samples containing analytes of high concentration as well as minor impurities or trace components.**

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